

## SCIENCE - - - FROM NATIONAL GEOGRAPHIC MAGAZINE

### 2023 may be the worst tick season ever. Here's how to protect yourself.

Here are some tips to keep them away, what to do if you find a tick on you, how to identify a tick bite, and more.

If you find an engorged tick on your body, like this one of the *Ixodes* genus, you're at higher risk for a disease.

BY TARA HAELE

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As people enjoy the outdoors this summer, they should remember they're not the only ones taking advantage of the warm weather. Warmer springs and longer summers means a longer tick season. Several states' health officials are already warning of a particularly bad year for ticks, and the Centers for Disease Control and Prevention reported earlier this year that cases of the tick-borne disease babesiosis have been rising.

"This is this is the time of year where, in lots of parts of the United States, a lot of people are getting exposed to ticks," Lyric Bartholomay, an entomologist at the University of Wisconsin-Madison, says. They might be worse this year because it warmed up sooner than it has in previous years. "Tick activity will ramp up as the temperatures rise, and if we have an early spring, then it's going to seem bad because suddenly we're seeing ticks at a time of year where we haven't seen them before."

The best way to avoid a tick-borne disease is, obviously, not to get bitten by a tick. "When you're out in the wild and you see those signs that say 'Don't feed the animals,' they mean don't feed the bear and rodents, but I think that should apply to the invertebrates too," Bartholomay says. "We should just really try not to feed the bloodsuckers either."

Here's what to know to protect yourself from ticks and what to do if you're bit.

How can you protect yourself from ticks?

The two keys are wearing the right clothes and using repellent when in areas with ticks.

"If you're walking through grassy or forested areas, wear long pants and long sleeve shirts, and then you check your clothes and skin for ticks when you come



Tucking your pants into your socks is an effective way of preventing ticks from reaching the skin on your legs.

PHOTOGRAPH BY ALEX TREADWAY, NAT GEO IMAGE

back," Timothy Brewer, an infectious disease physician and epidemiologist at the University of California Los Angeles says.

Bartholomay also recommends wearing light-colored clothing so it's easier to see ticks, and tucking your pants into your socks so they can't crawl up your pant leg.

"I think there's a little bit of a fear that ticks are going to drop out of the trees, and that's not really how ticks work most of the time," says Michael Reiskind, an entomologist at North Carolina State University. Since they're usually looking for smaller animals, they're of-

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ten latching on somewhere from the waist down and then crawling up.

Use a repellent that says it repels ticks, which includes those containing DEET. The percentage of DEET determines how long it lasts, so if you'll only be in ticks' home for an hour or so, a lower percentage is fine, Reiskind says. If you'll be out longer, up to 25 percent is wise, or re-apply the repellent. The insecticide permethrin on your clothes can also repel ticks.

When checking yourself for ticks, look around your ankles or legs if you've been out a short time, Reiskind said. But if you've been out for several hours or few days, they could have migrated anywhere, so have a friend or family member check your back and hairline as well.

### **What do you do if you find a tick on yourself?**

You should remove the tick, but be sure to remove the whole organism, including the mouthparts. Use tweezers to get a firm grip where it's attached and firmly but steadily pull upward without jerking. Never crush a tick, and don't grab the tick by the midsection or you risk squeezing its contents back into your body, Bartholomay said. She also said never to use Vaseline or a match or any item mentioned in other old wives' tales to remove a tick.

The CDC offers step-by-step instructions, including a Tick Bite Bot that walks you through removing a tick and seeking care. Afterward, clean the bite area and your hands with rubbing alcohol or soap and water, the CDC recommends.

### **How do you know you've been bitten by a tick?**

There's unfortunately no way to easily tell a tick bite from another critter's bite, such as a spider or mosquito bite, Reiskind says. "The only way you really know if you've been bitten by a tick is if you find the tick embedded in you, in the act of biting you," he says.

But ticks don't just bite and run. They settle in to get their fill of blood, and adults stay on for a day or two before becoming fully engorged, so many people find the tick before it drops off. Nymphs are much smaller—the size of a poppyseed—so they're harder to see and may drop off before you ever see them.

A tick bite is usually a red raised bump like a nasty mosquito bite. If a rash is present, you've developed an infection, though it's not possible to tell what kind by the rash alone. The distinctive bull's eye rash many people associate with Lyme disease can be caused by

other tick-borne pathogens, Reiskind says, and it's still possible you've contracted a disease if the rash looks different or if there's no rash at all.

### **What should you do if you've been bitten by a tick, or suspect a tick-borne disease?**

Symptoms of a tick-borne disease include fever, headaches, joint aches and pains, and a rash, Timothy Flanigan, an infectious disease physician at Brown University, says. If you develop a fever, malaise, or a rash after being in an area where ticks are active, Flanigan and Brewer recommend getting evaluated at your primary care doctor or an urgent care clinic.

"As long as you're not critically ill, you probably don't have to go to a hospital emergency room," Brewer said. Although you can be tested for tick-borne diseases, the tests detect antibodies, which can take a few weeks to show up in your blood, he says. "If we have a reasonable suspicion for tick-borne infection, we would just go ahead and treat it. We wouldn't wait for the test to come back."

If you find an engorged tick on your body that's clearly been there a while, you're at higher risk for a disease. If it's a blacklegged tick, you can see a doctor for doxycycline, an antibiotic which can help prevent Lyme disease from developing or treat it after it develops, Brewer and Flanigan say. Many other tick-borne diseases caused by bacteria are treated with doxycycline as well, but parasitic diseases, such as babesiosis, may require a different remedy, and viral disease, such as the Heartland virus or Colorado tick fever, don't have any treatments other than supportive care.

If you keep the tick after removing it, Flanigan noted that several companies will test it for pathogens. Though, the CDC doesn't recommend these testing services since evidence of a pathogen doesn't guarantee you were infected. But some people want to know what their risk is, and if symptoms do develop, you can tell your doctor what the results are.

### **Where in the U.S. are hotspots for ticks and tick-borne diseases?**

Ticks are found everywhere across the U.S., though "different geographic parts of the country have a different geographic pattern of disease," Flanigan says. He recommends the CDC's website on ticks to identify types of ticks, diseases they carry, and where they're

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found.

The blacklegged tick, which transmits Lyme disease, has historically been a problem mostly in the northeastern U.S., but it's been spreading south and west and now lives throughout the whole eastern half of the country, with increasing cases in the upper Midwest and the mid-Atlantic states.

But plenty of other types of ticks carry different diseases. Ehrlichiosis is found throughout the southeastern and south-central U.S. as far west as Texas, and the Rocky Mountain wood tick—which can transmit Rocky Mountain spotted fever, Colorado tick fever, and tularemia—is found throughout the West and Pacific Northwest. Babesiosis occurs most frequently in the Northeast and upper Midwest, but cases have occurred throughout other U.S. regions, including the West

Coast.

So, no matter where you are this summer, be vigilant: check your body for ticks, use a repellent, and wear appropriate clothing. And, if you are bitten, don't panic.

CPA Pirates of the Patuxent (Jun 22, 2023)

Patuxent River and Caney Creek

Launching from [Hallowing Point Waterfront Park](#)

Photos by Daniel Wells



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